/Computing@Balcarras_

SUBJECT	YEAR	TERM
Computer Science (OCR)	10	1

UNIT

Systems Architecture

INTENT

PRIOR LEARNING (TOPIC) Pupils will have some basic knowledge from Year 9 lessons, however, this is not a requirement for the topic.

To most people, the inner workings of a computer are a mystery. In this unit pupils will learn the core concepts at the heart of all computer systems. This includes really 'peeling back the cover' to explore some of the very low level workings of computer components like CPUs and memory.

Specification Points: This unit covers points 1.1.2 through to 1.2.2.

FUTURE LEARNING (TOPIC): Representing Data

IMPLEMENTATION	IMPACT
Throughout the unit pupils will cover: • The structure and role of the CPU. • Factors that impact the performance of a CPU. • The use of embedded systems. • The need for different types of memory in a computer system. • The differences between common storage types.	**Assessment:** Pupils will sit a 40 mark in-lesson assessment at the end of the unit, the score from which will be translated into a 9-1 style grading. In addition to this, pupils will complete regular exam style questions both during lesson and as part of homework tasks.

HOW CAN PARENTS HELP AT HOME?

All course materials are available via Firefly. In the build-up to the assessment, parents can help by supporting their child's revision. This can include testing them using flash cards or simply getting them to explain topics to you.

HELPFUL READING/FURTHER DISCUSSION

READING/EXTRA-LEARNING	CAREERS	WIDER SKILLS
There are an enormous number of online courses and tutorials to help pupils develop their computer science skills further. Visit the Next Steps section of the Computing department's Firefly page for more details.	This unit could lead onto careers such as electrical engineer or IT technician.	Digital Literacy Resilience

VOCABULARY

CPU, registers, FDE, Cache, Cores, Clock, RAM, ROM, VM, Optical, Magnetic, Solid State, Embedded System.